

## ABSTRACT OF THE DISCLOSURE

A remodulator timing signal (35) is generated by a phase locked loop (33) which is coupled to a broadcast vestigial sideband signal (5). Within the signal (5) is highly accurate timing data which is coupled to a demodulator (31). Timing signals to the demodulator are provided by a variable frequency oscillator (32) which receives a correction signal from a phase locked loop (33) housed within the demodulator. The phase locked loop generates the correction signal by comparing the VFO output frequency (36) with the timing data embedded within the broadcast signal (5). A value register (203,303,403) maintains the recent average VFO frequency. A multiplexer (204,304,404) selects the value register data to control the VFO (32,220,320) in the absence of the broadcast timing data.

$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx = \frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) e^{-x^2} dx$